

Claims:

1. A system for providing in-band control for transmitting data from a local end to a remote end and for remote provisioning of circuits, comprising
 - a plurality of storage devices at the local end,
 - a process for sorting incoming TDM data into the plurality of storage devices as a function of a destination associated with respective TDM data, and
 - a process for reading data from the storage devices according to a predetermined sequence, whereby data transmitted from the local end is received at the remote end in a sequence representative of data destination.
2. A system according to claim 1, further comprising a remote provisioning process for monitoring incoming data and for creating a connection table at a local end for storing information representative of memory locations at the remote end being provisioned for storing data associated with a respective one of the destinations.
3. A system according to claim 2, further comprising a process for in-band transmission of data representative of the connection table to the remote end for creating a remote connection table.
4. A system according to claim 2, further comprising An initialization process for transmitting a connection table to the remote end to allow transmission of data between the local and the remote end.
5. A system according to claim 2, further comprising an update process for monitoring incoming TDM data and altering the local and remote connection tables in response to detected changes in calls being handled by the system.
6. A system according to claim 5, wherein the update process further includes a remote table update process for generating control cells for in-band

communication of connection table data for updating the remote connection table.

7. A system according to claim 1, wherein
the remote end and the local end each include connection tables for supporting bidirectional calls.
8. A system according to claim 1, wherein
the connection table stores information for supporting 1:1 switching.
9. A system according to claim 1, wherein
the connection table stores information for supporting 1:N switching
10. A system according to claim 1, wherein
the connection table stores information for supporting multi-cast or broadcast switching.
11. A system according to claim 4, wherein
the initialization process is activated as part of a fail-over sequence.
12. A system according to claim 5, wherein
the update process is responsive to a scheduling signal that schedules updates at a rate selected to employ an amount of predefined amount of bandwidth.
13. A process for providing in-band provisioning control for a switch,
comprising the steps of
processing incoming TDB data to identify a number of circuits to provision for,
at a local end, provision memory locations at a remote end that are capable of storing data for respective ones of the identified circuits,
generating a table representative of the circuits and provisional memory

locations, and transmitting the table as in-band data packets to the remote end.

14. The process of claim 13, further comprising
 - defining a sequence for transferring data between the local and remote end, and
 - at the remote end, storing data into memory locations as a function of the order in which data occurs in the sequence.
15. The process of claim 13, further comprising
 - at the remote end, building a connection table, and
 - returning an acknowledge signal to the local end.
16. The process of claim 13, further comprising
 - periodically transferring connection table data to the remote end.
17. The process of claim 13, further comprising
 - providing connection tables at the local end and the remote end to support bidirectional calling
18. The process of claim 13, further comprising
 - transferring connection table data in response to a detected failure at the remote end
19. The process of claim 13, further comprising
 - determining a rate for updating a remote connection table as a function of available bandwidth
20. A system for failing over a remote device, comprising
 - a local switch having a connection table storing information representative of data flows being supported,

a failure detector capable of detecting a failure out of a remote device, and a failover device capable of identifying an alternate remote device and delivering the connection table to the alternate remote device.